Table 1C

# **2016 Pregnancy Nutrition Survelliance** (1)

# Michigan

**Summary of Demographic Indicators** (2)

Total Records	Number	%
Complete Records	43,038	71.6
Prenatal Records	3,964	6.6
Postpartum Records	13,141	21.8
Total Records Accepted	60,143	

		Source of Data	Number	%
WIC			60,143	100.0
Maternal Health			0	0.0
Other			0	0.0
Total			60,143	100.0
Excluded Unknown:	0	0.0		

Race/Ethnic Distribution	Number	%
White, Not Hispanic	32,209	53.8
Black, Not Hispanic	17,396	29.1
Hispanic	6,378	10.7
American Indian/Alaska Native	183	0.3
Asian/Pacific Islander	1,258	2.1
Multiple Races	2,389	4.0
All Other	0	0.0
Total	59,813	100.0
Excluded Unknown: 326 0.5		

Age Distribution	Number	%
< 15 Years	87	0.1
15 - 17 Years	1,811	3.0
18 - 19 Years	4,737	7.9
20 - 29 Years	38,125	63.5
30 - 39 Years	14,232	23.7
>= 40 Years	1,063	1.8
Total	60,055	100.0
Excluded Unknown: 88 0.1		

<b>Education Distribution</b>		Number	%
> High School		18,503	31.3
High School		26,502	44.9
< High School		14,048	23.8
Total		59,053	100.0
Excluded Unknown: 1,090	1.8		

Run Date:

Poverty Level			Number	%
0 - 50			17,678	37.7
51 - 100			12,931	27.5
101 - 130			5,653	12.0
131 - 150			2,814	6.0
151 - 185			3,715	7.9
186 - 200			1,063	2.3
> 200			2,812	6.0
Adjunctive Eligibility	<i>'</i>		276	0.6
Total			46,942	100.0
Excluded Unknown:	13,239	22.0		

<b>Program Participation</b> (3)	Number	%
WIC	47,002	100.0
SNAP	46,950	50.1
Medicaid	46,932	88.4
Tanf	46,975	5.7
Excluded Unknown:		
WIC:	0	0.0
SNAP:	0	0.0
Medicaid:	0	0.0
Tanf:	0	0.0

Migrant Status			Number	%
Yes			514	0.9
No			59,629	99.1
Total			60,143	100.0
Excluded Unknown:	0	0.0		

<sup>(1)</sup> Reporting period is January 1 through December 31
(2) Excludes records with unknown data errors.
(3) Prenatal program participation
\* Percentages are not calculated if <100 records are available for analysis after exclusions</li>

(1)

04/05/2017

# Michigan **Summary of Health Indicators**

Su	immary of Health Indicators (2				
	Michigan Prevalence	Michigan Prevalence			
	Number	%	Number	%	
Prepregnancy BMI (3)					
Underweight	51,019	4.4	120,948	4.3	
Normal Weight	51,019	37.5	120,948	37.9	
Overweight	51,019	24.8	120,948	24.8	
Obese	51,019	33.4	120,948	33.1	
Maternal Weight Gain (4)					
Less Than Ideal	33,141	19.4	96,895	20.6	
Ideal	33,141	29.4	96,895	28.5	
Greater Than Ideal	33,141	51.2	96,895	50.9	
Anemia (Low Hb/Hct) (5)					
1st Trimester	18,954	11.7	40,589	6.1	
2nd Trimester	17,145	17.6	37,016	8.0	
3rd Trimester	9,642	45.1	26,281	32.1	
Postpartum	12,155	34.6	37,350	28.5	
Parity (6)					
0	59,377	35.2	132,704	40.5	
1	59,377	29.8	132,704	28.2	
2	59,377	18.6	132,704	17.6	
>= 3	59,377	16.4	132,704	13.6	
Interpregnancy Interval					
<= 6 Months	37,584	12.5	78,306	12.1	
6 - <18 Months	37,584	26.6	78,306	26.0	
>= 18 Months	37,584	60.9	78,306	61.9	
Gestational Diabetes	55,467	6.8	119,602	5.7	
Hypertension During Pregnancy	55,501	10.9	119,622	7.5	

<sup>(1)</sup> Reporting period is January 1 through December 31(2) Excludes records with unknown data errors.

<sup>(3)</sup> Based on 2009 IOM report "Weight Gain During Pregnancy": underweight (BMI <18.5), normal weight (BMI 18.5 to 24.9). overweight (BMI 25.0 to 29.9), obese (BMI > 30.0).
(4) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight during pregnancy (ideal weight gain = 28 to 40 pounds), normal weight prepregnancy (ideal weight gain = 25 to 35 pounds), overweight gain = 15 to 25 pounds), obese prepregnancy (ideal weight gain = 11 to 20 pounds).
(5) Based on 1990 MMWR, "Recommendations to prevent and control Iron Deficiency in the United States"; adjusted for altitude and smoking.

<sup>(6)</sup> Number of times a woman has given birth to an infant 20 or more weeks gestation

<sup>\*</sup> Percentages are not calculated if <100 records are avilable for analysis after exclusions

# **2016 Pregnancy Nutrition Survelliance** Michigan

(1)

**Summary of Health Indicators** 

Run Date: 04/05/2017

	Michigan Prevalence		National Prevalence (Prior Year)	
	Number	%	Number	%
Medical Care				
1st Trimester	54,902	82.2	107,398	79.6
No Care	54,902	8.4	107,398	11.2
WIC Enrollment				
1st Trimester	59,192	32.4	128,068	32.1
2nd Trimester	59,192	29.7	128,068	29.4
3rd Trimester	59,192	16.9	128,068	20.3
Postpartum (3)	59,192	21.1	128,068	18.3
Prepregnancy Multivitamin Consumption (4)	46,023	20.1	101,348	18.4
Mulitivitamin Consumption During Pregnancy (5)	46,578	87.4	98,273	87.7
Smoking				
3 Months Prior to Pregnancy	53,738	28.6	137,210	28.8
During Pregnancy	46,609	16.9	114,082	20.6
Last 3 Months of Pregnancy	55,530	15.1	134,524	16.4
Postpartum	55,553	16.0	134,525	17.2
Smoking Changes (6)				
Quit Smoking by First Prenatal Visit	13,947	44.1	34,081	39.5
Quit Smoking by First Prenatal Visit and Stayed Off Cigarettes	12,776	39.3	29,612	36.7
Smoking in Household				
During Pregnancy	46,598	11.9	105,473	16.2
Postpartum	55,576	3.4	126,803	7.8
Drinking				
3 Months Prior to Pregnancy	53,668	18.5	137,016	13.8
Last 3 Months of Pregnancy	55,588	0.5	128,007	0.4

 <sup>(1)</sup> Reporting period is January 1 through December 31
 (2) Excludes records with unknown data errors.
 (3) Women who initially enrolled in WIC during the postpartum period.
 (4) Women who reported taking a multivitamin four times a weeks or more in the month before pregnancy, proxy for folic acid consumption.
 (5) Pregnant women who reported taking a multivitamin in the past month; proxy for prenatal iron consumption.
 (6) Among women who smoked 3 months prior to pregnancy.
 \* Percentages are not calculated if <100 records are available for analysis after exclusions</li>

Table 2C

#### 2016 **Pregnancy Nutrition Survelliance** (1)

04/05/2017

Run Date:

## Michigan

# **Summary of Health Indicators**

Summary of Health Indicators (2)						
	Michigan Prevalence		National Prevalence (Prior Year)			
	Number	%	Number	%		
Birthweight (3)						
Very Low	52,145	1.5	114,229	1.4		
Low	52,145	8.3	114,229	7.8		
Normal	52,145	83.3	114,229	83.7		
High	52,145	6.9	114,229	7.2		
Preterm (4)	53,729	12.3	105,359	11.9		
Full term Low Birth Weight (5)	45,194	4.2	90,193	3.7		
Multiple Births	55,257	1.8	127,661	1.5		
Brestfeeding						
Ever Breastfed	52,507	66.2	114,725	70.2		

<sup>(1)</sup> Reporting period is January 1 through December 31
(2) Excludes records with unknown data errors.
(3) Very low birth weight (<1500 g), low birth weight (1500 - <2500 g), normal birth weight (2500 - <4000 g), high birth weight (>4000 g).
(4) <37 weeks gestation.</li>
(5) 37 or more weeks gestation <2500 g.</li>
\* Percentages are not calculated if <100 records are available for analysis after exclusions</li>

# Table 3C 2016 Pregnancy Nutrition Survelliance

Run Date:

(1)

04/05/2017

# Michigan

# **Comparison of Racial Ethnic Distribution by Contributor to Nation**

Comparison of Racial and Ethnic Distribution (2)								
	Number Included in Analysis	White, Not Hispanic	Black, Not Hispanic	Hispanic	American Indian/Alaska Native	Asian/Pacific Islander	Multiple Races	All Other/Unknown
	,	%	%	%	%	%	%	%
Michigan	60,139	53.6	28.9	10.6	0.3	2.1	4.0	0.5
Nation (Prior Year)	144,442	56.2	24.5	12.4	0.5	2.8	3.0	0.7

 <sup>(1)</sup> Reporting period is January 1 through December 31
 (2) Excludes data with errors
 \* Percentages are not calculated if <100 records are available for analysis after exclusions.</li>

# Table 4C 2016 Pregnancy Nutrition Survelliance

Run Date:

04/05/2017

## Michigan

# **Comparison of Age Distribution by Contributor to Nation**

	Comparison of Age Distribution (2)													
	Number Included in Analysis	< 15 Years %	15 - 17 Years %	18 - 19 Years %	20 - 29 Years %	30 - 39 Years %	>= 40 Years %	Unknown %						
Michigan	60,143	0.1	3.0	7.9	63.4	23.7	1.8	0.1						
Nation (Prior Year)	144,449	0.2	3.4	9.2	63.6	22.1	1.4	0.1						

<sup>(1)</sup> Reporting period is January 1 through December 31
(2) Excludes data with errors
\* Percentages are not calculated if <100 records are available for analysis after exclusions.</li>

#### Table 5C

# 2016 Pregnancy Nutrition Survelliance (1)

Run Date:

04/05/2017

#### Michigan

#### **Comparison of Maternal Health Indicators by Contributor to Nation**

**Comparison of Maternal Health Indicators** (2) Prepregnancy BMI Weight Gain Anemia Gestational Hypertension (3) (4) (Low Hb/Hct) Diabetes During (5) During Pregnancy Pregnancy Under-Over-3rd Trimester < Ideal > Ideal Postpartum weight weight Number % % Number % % Number % Number % Number % Number % Michigan 58.1 51,019 4.4 33,141 19.4 51.2 9,642 45.1 12,155 34.6 55,467 6.8 55,501 10.9 Nation (Prior Year) 120,948 96,895 26,281 37,350 28.5 119,602 119,622 7.5 4.3 57.8 20.6 50.9 32.1 5.7

<sup>(1)</sup> Reporting period is January 1 through December 31

<sup>(2)</sup> Excludes records with unknown data errors.

<sup>(3)</sup> Based on 2009 IOM report "Weight Gain During Pregnancy": underweight (BMI <18.5), normal weight (BMI 18.5 to 24.9). overweight (BMI 25.0 to 29.9), obese (BMI > 30.0).

<sup>(4)</sup> Based on 2009 IOM report "Weight Gain During Pregnancy": underweight during pregnancy (ideal weight gain = 28 40 40 pounds), normal weight prepregnancy (ideal weight gain = 25 to 35 pounds), overweight gain = 15 to 25 pounds), obese prepregnancy (ideal weight gain = 11 to 20 pounds).

<sup>(5)</sup> Based on 1990 MMWR, "Recommendations to prevent and control Iron Deficiency in the United States"; adjusted for altitude and smoking.

\* Percentages are not calculated if <100 records are available for analysis after exclusions

### Table 6C

# **2016 Pregnancy Nutrition Survelliance**

Michigan

Run Date:

04/05/2017

#### **Comparison of Maternal Behavioral Indicators by Contributor to Nation**

	Comparison of Maternal Behavioral Indicators (2)													
		Medical Care		WIC En	rollment	Multivitamin Consumption								
	1st Trimester No Care			1st Tri	mester	Prepre		During Pre	egnancy					
	Number	%	%	Number	%	Number	%	Number	%					
Michigan	54,902	82.2	8.4	59,192	32.4	46,023	20.1	46,578	87.4					
Nation (Prior Year)	107,398	79.6	11.2	128,068	32.1	101,348	18.4	98,273	87.7					

<sup>(1)</sup> Reporting period is January 1 through December 31.(2) Excludes records with unknown data or errors.(3) Woman who reported taking a multivitamin four times a weeks or more in the month before pregnancy: proxy for folic acid consumption.

(4) Pregnant women who reported tkaing a multivitamin in the past month; proxy for prenatal iron consumption.

\* Percentages are not calculated if <100 records are available for analysis after exclusions.

## Table 7C

Michigan

# **2016 Pregnancy Nutrition Survelliance**

Run Date:

#### 04/05/2017

## **Comparison of Smoking Indicators by Contributor to Nation**

		Comparison of	of Smc	king Indicat	tors (2)				
		Quit Sm By First P Visit and St Cigarett	renatal tayed Off		Smoking in	Household			
	3 Months Prior to Pregnancy	Last 3 Months of Pregnancy				Prenatal		Postpartum	
	Number	6 Number	%	Number	%	Number	%	Number	%
Michigan	53,738 28	6 55,530	15.1	12,776	39.3	46,598	11.9	55,576	3.4
Nation (Prior Year)	137,210 28	.8 134,524	16.4	29,612	36.7	105,473	16.2	126,803	7.8

<sup>(1)</sup> Reporting period is January 1 through December 31.
(2) Excludes records with unknown data or errors.
(3) Among women who smoked 3 months prior to pregnancy.
\* Percentages are not calculated if <100 records are available for analysis after exclusions.</li>

## Table 8C

# **2016 Pregnancy Nutrition Survelliance** Michigan

04/05/2017

Run Date:

## Comparison of Infant Health Indicators by Contributor to Nation

	Comparison of Infant Health Indicators (2)													
		Birthweight		Prete	erm	Full Ter	m LBW	Ever B	reastfed					
		Low (3)	High (4)	(5)		(6	5)							
	Number	%	%	Number	%	Number	%	Number	%					
Michigan	52,145	9.8	6.9	53,729	12.3	45,194	4.2	52,507	66.2					
Nation (Prior Year)	114,229	9.1	7.2	105,359	11.9	90,193	3.7	114,725	60.5					

<sup>(1)</sup> Reporting period is January 1 through December 31
(2) Excludes records with unkown data errors.
(3) <2500 g.</li>
(4) >4000 g.
(5) <37 weeks gestation.</li>
(6) 37 or more weeks gestation and <2500 g.</li>
\* Percentages are not calculated if <100 records are available for analysis after exclusions</li>

Run Date: 04/05/2017

## Maternal Health Indicators by Race/Ethnicity, Age, or Education

Maternal Health Indicators by Race/Ethnicity, Age, or Education (2) Prepregnancy BMI Weight Gain Anemia (Low Hb/Hct) Gestational Hypertension Under-Over-< Ideal >Ideal 3rd Trimester Postpartum Diabetes During Weight Weight Pregnancy Number % % Number % % Number % Number % Number % Number % Race/Ethnicity White, Not Hispanic 27,427 4.8 55.7 17,582 17.8 52.5 4,843 35.9 7,138 27.3 29,777 6.9 29,804 10.3 Black, Not Hispanic 14.954 3.9 62.3 10.223 19.5 51.9 3,280 59.2 3.002 52.1 16.282 5.5 16.283 13.6 Hispanic 5,372 3.1 62.6 3,323 24.8 44.2 935 45.3 1,157 33.9 5,830 8.9 5,835 8.5 American Indian/Alaska Native 156 3.2 63.5 78 22 42 161 8.1 161 12.4 Asian/Pacific Islander 1,003 7.7 37.9 610 30.7 30.7 183 40.4 298 29.9 1,180 14.6 1,181 5.5 2,084 35.9 2,225 9.7 Multiple Races 4.7 58.0 1,318 19.8 54.9 376 41.2 510 6.2 2,225 All Other/Unknown 20 6 3 7 9 9 Total 51,019 4.4 58.1 33,141 51.2 9,642 45.1 12,155 34.6 55,467 55,501 10.9 19.4 6.8 Age < 15 Years 72 46 9 6 78 78 15 - 17 Years 1.564 9.3 34.3 992 21.0 48.4 283 50.5 299 48.8 1,663 2.2 1,665 11.1 4,295 4,291 10.5 18 - 19 Years 4,136 7.4 45.0 2,621 19.0 52.7 752 51.7 834 43.8 2.5 20 - 29 Years 32,505 4.5 57.2 21,362 19.0 51.5 6,483 45.0 7,590 35.2 35,292 5.3 35,306 9.9 30 - 39 Years 11,847 2.6 67.5 7,609 19.9 50.6 1,974 42.4 3,171 29.2 13,138 12.2 13,158 13.3 833 72.9 481 38.3 32.2 19.1 920 18.2 >= 40 Years 1.4 26.2 44.7 133 233 918 Unknown 62 30 8 22 83 83 **Total** 51,019 4.4 58.1 33,141 19.4 51.2 9,642 45.1 12,155 34.6 55,467 6.8 55,501 10.9 Education < High School 5.8 53.3 7,173 23.8 46.3 2,477 41.7 12,918 9.5 11,618 2,198 51.3 12,906 6.3 High School 22,695 4.5 58.3 14,910 18.9 52.1 4,374 45.7 5,003 35.9 24,697 6.5 24,709 11.0 > High School 16,084 3.2 61.6 10,719 17.1 53.2 39.5 29.2 17,158 7.7 17,167 2,984 4,456 11.9 622 339 20.1 52.2 219 32.0 706 7.6 707 10.7 **Excluded Unknown** 4.5 53.5 86 51,019 58.1 51.2 45.1 34.6 10.9 **Total** 4.4 33,141 19.4 9,642 12,155 55,467 6.8 55,501

<sup>(1)</sup> Reporting period is January 1 through December 31

<sup>(2)</sup> Excludes records with unknown data for health indicators, and data with errors for health and demographic indicators.

<sup>(3)</sup> Based on 2009 IOM report "Weight Gain During Pregnancy": underweight (BMI <18.5), normal weight (BMI 18.5 to 24.9). overweight (BMI 25.0 to 29.9), obese (BMI > 30.0).

<sup>(4)</sup> Based on 2009 IOM report "Weight Gain During Pregnancy": underweight during pregnancy (ideal weight gain = 28 40 40 pounds), normal weight prepregnancy (ideal weight gain = 25 to 35 pounds), overweight gain = 15 to 25 pounds), obese prepregnancy (ideal weight gain = 11 to 20 pounds).

<sup>(5)</sup> Based on 1990 MMWR, "Recommendations to prevent and control Iron Deficiency in the United States"; adjusted for altitude and smoking.

<sup>\*</sup> Percentages are not calculated if <100 records are available for analysis after exclusions

Table 10C 2016 Pregnancy Nutrition Survelliance

04/05/2017

# Michigan Maternal Behavioral Indicators by Race/Ethnicity, Age, or Education

M	aternal Behavi	oral Indica	tors by F	Race/Ethnicity	, Age, or Ed	ducation (2	)		
	Me	edical Care		WIC Enro	ollment	Mı	ultivitamin Co	onsumption	
	1st Trim	ester	No Care	1st Trim	ester	Prepregi		During Pregnancy (4)	
	Number	%	%	Number	%	Number	%	Number	%
Race/Ethnicity									
White, Not Hispanic	29,471	83.8	9.8	31,689	36.0	25,874	23.1	25,254	88.7
Black, Not Hispanic	16,144	80.4	4.8	17,150	23.5	12,290	13.8	13,010	86.9
Hispanic	5,744	79.0	11.7	6,262	38.5	4,818	19.7	5,261	82.5
American Indian/Alaska Native	162	84.6	5.6	182	40.7	155	28.4	152	86.8
Asian/Pacific Islander	1,164	84.8	7.6	1,240	31.2	977	20.1	968	85.4
Multiple Races	2,205	81.0	9.2	2,349	34.6	1,886	21.2	1,919	87.3
All Other/Unknown	9	*	*	316	6.0	19	*	10	*
Total	54,902	82.2	8.4	59,192	32.4	46,023	20.1	46,578	87.4
Age									
< 15 Years	77	*	*	83	*	71	*	80	*
15 - 17 Years	1,638	67.8	11.4	1,783	34.0	1,449	8.0	1,557	85.9
18 - 19 Years	4,243	78.2	10.5	4,683	35.6	3,801	10.2	4,001	85.8
20 - 29 Years	34,937	83.2	7.8	37,527	30.8	28,747	18.9	29,324	87.5
30 - 39 Years	13,012	83.0	8.8	13,992	34.9	11,045	27.7	10,739	87.8
>= 40 Years	911	80.8	10.0	1,039	38.1	836	27.2	809	87.8
Unknown	84	*	*	85	*	74	*	68	*
Total	54,902	82.2	8.4	59,192	32.4	46,023	20.1	46,578	87.4
Education									
< High School	12,727	76.0	10.3	13,764	34.0	10,160	13.6	11,169	82.0
High School	24,427	82.3	8.4	26,135	32.8	20,153	18.2	20,854	87.6
> High School	17,052	86.7	7.1	18,231	31.1	15,093	27.1	14,036	91.6
Excluded Unknown	696	83.9	8.3	1,062	23.7	617	19.6	519	81.1
Total	54,902	82.2	8.4	59,192	32.4	46,023	20.1	46,578	87.4

 <sup>(1)</sup> Reporting period is January 1 through December 31.
 (2) Excludes records with unknown data for behavioral indicators, and data with errors for behavioral and demographic indicators.
 (3) Woman who reported taking a multivitamin four a weeks or more in the month before pregnancy. proxy for folic acid consumption.
 (4) Pregnant women who reported tkaing a multivitamin in the past month; proxy for prenatal iron consumption.
 \* Percentages are not calculated if <100 records are available for analysis after exclusions.</li>

Table 11C 2016 Pregnancy Nutrition Survelliance (1)

04/05/2017

Smoking Indicators by Race/Ethnicity, Age, or Education

Michigan

Comparison of Smoking Indicators (2)												
		Smoking				noking Prenatal Stayed Off tes (3)		Smoking in	Household			
	3 Month Prior to Pred		Last 3 M of Pregr				Pren	atal	Postpartum			
	Number	%	Number	<u>'''''''''''''''''''''''''''''''''''''</u>	Number	%	Number	%	Number	%		
Race/Ethnicity												
White, Not Hispanic	29,428	35.6	29,826	20.8	8,628	33.1	25,257	12.4	29,852	3.0		
Black, Not Hispanic	15,021	20.9	16,280	8.1	2,669	55.8	13,003	13.6	16,292	4.6		
Hispanic	5,775	14.7	5,846	6.0	721	53.5	5,271	6.1	5,850	1.7		
American Indian/Alaska Native	168	48.8	160	26.9	62	*	152	16.4	161	6.8		
Asian/Pacific Islander	1,176	3.6	1,182	1.1	36	*	977	3.0	1,182	1.2		
Multiple Races	2,147	36.0	2,224	19.5	660	37.7	1,924	14.5	2,227	3.8		
All Other/Unknown	19	*	9	*	0	*	10	*	9	*		
Total	53,738	28.6	55,530	15.1	12,776	39.3	46,598	11.9	55,576	3.4		
Race/Ethnicity								;				
< 15 Years	85	*	79	*	6	*	80	*	79	*		
15 - 17 Years	1,758	20.0	1,666	6.5	307	57.0	1,558	26.3	1,666	7.1		
18 - 19 Years	4,468	27.8	4,301	11.1	1,046	52.0	4,002	20.3	4,300	5.5		
20 - 29 Years	33,590	30.0	35,308	15.6	8,488	40.1	29,326	11.4	35,353	3.2		
30 - 39 Years	12,762	27.5	13,172	16.5	2,794	30.4	10,752	8.3	13,170	2.7		
>= 40 Years	993	19.2	920	11.8	129	27.1	812	8.9	924	2.8		
Unknown	82	*	84	*	6	*	68	*	84	*		
Total	53,738	28.6	55,530	15.1	12,776	39.3	46,598	11.9	55,576	3.4		
Race/Ethnicity												
< High School	12,219	35.9	12,921	21.6	3,666	32.7	11,176	15.6	12,944	4.6		
High School	23,721	30.9	24,713	16.0	6,182	40.2	20,858	12.4	24,731	3.6		
> High School	17,075	20.5	17,184	9.0	2,827	46.1	14,043	8.2	17,189	2.2		
Excluded Unknown	723	20.6	712	10.1	101	32.7	521	12.5	712	2.2		
Total	53,738	28.6	55,530	15.1	12,776	39.3	46,598	11.9	55,576	3.4		

<sup>(1)</sup> Reporting period is January 1 through December 31.
(2) Excludes records with unknown data for smoking indicators, and data with errors for smoking and demographic indicators.
(3) Among women who smoked 3 months prior to pregnancy.
\* Percentages are not calculated if <100 records are available for analysis after exclusions.</li>

Table 12C 2016 Pregnancy Nutrition Survelliance (1)

04/05/2017

Michigan

Infant Health Indicators by Race/Ethnicity, Age, or Education

	Infant H	lealth Indic	cators by	/ Race/Ethn	icity, Age	, or Educat	ion (2)		
		Birthweight		Pret	erm	Full Terr	n LBW	Ever Bro	eastfed
		Low (3)	High (4)	(5	5)	(6)	)		
	Number	%	%	Number	%	Number	%	Number	%
Race/Ethnicity									
White, Not Hispanic	27,800	8.0	8.8	28,754	11.1	24,437	3.2	28,125	70.6
Black, Not Hispanic	15,487	13.8	3.5	15,903	15.3	12,985	6.3	15,497	54.6
Hispanic	5,469	7.5	7.8	5,590	11.1	4,797	3.7	5,496	72.3
American Indian/Alaska Native	149	3.4	12.1	158	8.2	136	1.5	150	73.3
Asian/Pacific Islander	1,112	10.6	4.5	1,159	11.8	972	5.1	1,127	74.4
Multiple Races	2,119	9.1	6.4	2,155	11.2	1,860	4.0	2,102	70.7
All Other/Unknown	7	*	*	8	*	5	*	8	*
Total	52,145	9.8	6.9	53,729	12.3	45,194	4.2	52,507	66.2
Age		,						1	
< 15 Years	76	*	*	74	*	56	*	76	*
15 - 17 Years	1,581	8.2	4.6	1,630	12.5	1,368	4.3	1,589	59.7
18 - 19 Years	4,089	8.0	5.2	4,213	11.2	3,597	3.8	4,108	65.6
20 - 29 Years	33,375	8.0	6.7	34,310	11.5	29,199	4.2	33,584	66.6
30 - 39 Years	12,163	9.2	8.3	12,595	14.6	10,276	4.3	12,273	66.2
>= 40 Years	786	11.6	7.6	829	18.9	627	5.9	798	63.7
Unknown	75	*	*	78	*	71	*	79	*
Total	52,145	9.8	6.9	53,729	12.3	45,194	4.2	52,507	66.2
Education									
< High School	11,898	9.8	5.4	12,413	13.6	10,111	5.2	12,086	55.5
High School	23,319	8.0	6.8	23,973	12.1	20,296	4.2	23,453	64.3
> High School	16,283	7.6	8.2	16,661	11.8	14,221	3.5	16,299	76.4
Excluded Unknown	645	8.1	6.8	682	10.9	566	4.6	669	75.6
Total	52,145	9.8	6.9	53,729	12.3	45,194	4.2	52,507	66.2

<sup>(1)</sup> Reporting period is January 1 through December 31
(2) Excludes records with unknown data for health indicators, and data with errors for health and demographic indicators.
(3) <2500 g.</li>
(4) >4000 g.
(5) <37 weeks gestation.</li>
(6) 37 or more weeks gestation and <2500 g.</li>
\* Percentages are not calculated if <100 records are available for analysis after exclusions</li>

04/05/2017

### Michigan

### Maternal Weight Gain and Birth Outcomes by Select Health Indicators

	Maternal Weight Gain and Birth Outcomes by Select Health Indicators (2)													
	Weigh	nt Gain (3)		Bir	thweight									
	< Ideal > Ideal		> Ideal		Low (4)	High (5)	Preterm (6)		Full Term (7)	LBW				
	Number	%	%	Number	%	%	Number	%	Number	%				
Prepregnancy BMI														
Underweight	1,496	31.3	25.9	1,964	17.0	2.6	2,022	15.7	1,642	8.8				
Normal Weight	12,696	23.7	41.3	16,780	10.1	4.8	17,227	11.8	14,640	4.6				
Overweight	8,231	11.2	62.3	11,151	9.0	7.2	11,449	11.8	9,719	3.8				
Obese	10,718	18.9	57.9	15,082	8.5	9.6	15,387	12.4	13,047	3.3				
Weight Gain														
< Ideal	-	-	-	5,973	17.1	3.1	6,135	17.7	4,866	8.0				
Ideal	-	-	-	9,393	10.1	4.9	9,588	12.1	8,177	4.6				
> Ideal	-	-	-	16,358	6.7	9.7	16,697	9.9	14,578	2.8				
Smoking During Pregnancy														
Smokers	4,052	22.0	49.0	6,519	12.0	4.3	6,820	13.2	5,653	6.4				
Non-Smokers	19,625	18.4	51.9	33,514	8.2	7.7	34,640	11.5	29,555	3.5				

<sup>(1)</sup> Reporting period is January 1 through December 31
(2) Excludes records with unknown data errors.
(3) Based on 2009 IOM report "Weight Gain Druing Pregnancy": underweight during pregnancy (ideal weight gain = 28 40 40 pounds), normal weight prepregnancy (ideal weight gain = 25 to 35 pounds), overweight gain = 15 to 25 pounds), obese prepregnancy (ideal weight gain = 11 to 20 pounds).
(4) <2500 g.</li>
(5) >4000 g.
(6) <37 weeks gestation.</li>
(7) 37 or more weeks gestation and <2500 g.</li>
\* Percentages are not calculated if <100 records are available for analysis after exclusions</li>

Table 14C **2016** Pregnancy Nutrition Survelliance (1)

# **Summary of Trends in Racial Ethnic Distribution**

	Summary of Trends in Racial and Ethnic Distribution (2)													
Year	Number Included in	White, Not Hispanic	Black, Not Hispanic	·	American Indian/Alaska Native	Asian/Pacific Islander	Multiple Races	All Other/Unknown						
	Analysis	%	%	%	%	%	%	%						
2016	60,139	53.6	28.9	10.6	0.3	2.1	4.0	0.5						
2015	63,086	54.0	29.0	10.2	0.4	2.1	3.6	0.8						
2014	65,941	55.7	28.0	9.7	0.4	2.0	3.6	0.6						
2013	67,256	55.5	28.3	9.9	0.4	2.0	3.5	0.6						
2012	67,977	56.2	27.5	10.0	0.4	1.9	3.4	0.6						
2011	68,267	57.0	27.3	10.0	0.4	1.7	2.9	0.6						
2010	68,559	56.7	27.5	10.4	0.3	1.7	2.6	0.7						

Run Date:

<sup>(1)</sup> Reporting period is January 1 through December 31
(2) Excludes records with unknown data errors.
\* Percentages are not calculated if <100 records are available for analysis after exclusions</li>

### Table 15C 2016 Pregnancy Nutrition Survelliance (1)

Michigan

**Summary of Trends in Age Distribution** 

Run Date: 04/05/2017

	Summary of Trends in Age Distribution (2)													
Year	Number Included in	< 15 Years	15 - 17 Years	18 - 19 Years	20 - 29 Years	30 - 39 Years	>= 40 Years	Unknown						
	Analysis	%	%	%	%	%	%	%						
2016	60,143	0.1	3.0	7.9	63.4	23.7	1.8	0.1						
2015	63,091	0.1	3.2	8.4	63.8	22.8	1.6	0.2						
2014	65,945	0.2	3.4	9.1	63.5	22.1	1.7	0.2						
2013	67,261	0.2	3.9	9.8	63.1	21.2	1.6	0.2						
2012	67,977	0.2	4.5	10.7	62.2	20.5	1.5	0.3						
2011	68,267	0.2	4.9	11.5	61.7	19.9	1.5	0.3						
2010	68,559	0.2	5.6	12.6	60.6	19.2	1.4	0.4						

<sup>(1)</sup> Reporting period is January 1 through December 31
(2) Excludes records with unknown data errors.
\* Percentages are not calculated if <100 records are available for analysis after exclusions</li>

# Table 16C

# 2016 Pregnancy Nutrition Survelliance

### Michigan

## **Summary of Trends in Maternal Health Indicators**

(1)

	Summary of Trends in Maternal Health Indicators (2)													
Year	Prepre	Prepregnancy BMI (3)			Veight Ga (4)	in		Ane (Low H	lb/Hct)					
		Under- weight	Over- weight		< Ideal	> Ideal	3rd Trime	ster	Postpartı	ım				
	Number	%	%	Number	%	%	Number	%	Number	%				
2016	51,019	4.4	58.1	33,141	19.4	51.2	9,642	45.1	12,155	34.6				
2015	53,599	4.4	56.8	44,460	19.6	50.7	9,750	41.4	12,308	31.6				
2014	56,540	4.3	56.3	45,714	17.2	52.3	9,959	39.6	12,485	28.7				
2013	58,063	4.3	56.0	46,728	16.9	52.4	9,903	38.9	11,995	28.7				
2012	61,321	4.4	54.9	48,759	17.4	51.3	9,736	38.4	12,636	27.9				
2011	62,449	4.4	54.4	50,780	17.6	51.0	10,073	35.7	13,689	27.5				
2010	62,806	4.3	54.7	47,992	18.1	50.9	9,772	35.9	14,361	27.8				

Run Date:

<sup>(1)</sup> Reporting period is January 1 through December 31

 <sup>(2)</sup> Excludes records with unknown data errors.
 (3) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight (BMI <18.5), normal weight (BMI 18.5 to 24.9). overweight (BMI 25.0 to 29.9), obese (BMI > 30.0).
 (4) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight during pregnancy (ideal weight gain = 28 40 40 pounds), normal weight prepregnancy (ideal weight gain = 25 to 35 pounds), overweight gain = 15 to 25 pounds), obese prepregnancy (ideal weight gain = 11 to 20 pounds).
 (5) Based on 1990 MMWR, "Recommendations to prevent and control Iron Deficiency in the United States"; adjusted for altitude and smoking.
 \* Percentages are not calculated if <100 records are available for analysis after exclusions</li>

Table 17C 2016 Pregnancy Nutrition Survelliance

Run Date: 04/05/2017

# Michigan **Summary of Trends in Maternal Behavioral Indicators**

Summary of Maternal Behavioral Indicators (2)													
Year	Medical Care WIC Enrollme												
	1st Trir	nester	No Care	1st Trin	nester								
	Number	%	%	Number	%								
2016	54,902	82.2	8.4	59,192	32.4								
2015	57,566	81.1	9.4	62,186	34.1								
2014	60,317	79.7	10.8	64,954	35.7								
2013	61,039	79.9	10.5	66,266	36.9								
2012	61,308	79.8	10.6	67,036	38.0								
2011	60,703	81.1	9.2	67,132	36.7								
2010	58,935	80.9	8.9	67,582	37.6								

<sup>(1)</sup> Reporting period is January 1 through December 31
(2) Excludes records with unknown data errors.
(3) Prenatal program participation
\* Percentages are not calculated if <100 records are available for analysis after exclusions</li>

# Table 18C 2016 Pregnancy Nutrition Survelliance

Run Date:

04/05/2017

# Michigan **Summary of Trends in Smoking Indicators**

		(2)								
Year		Sm	noking		Quit Smok By First Prer Visit and Stay Cigarettes	natal ed Off	Sr	moking in	Household	
	3 Months Prior to Pregr		Last 3 Months of Pregnancy				Prenatal		Postpartur	n
	Number	%	Number	%	Number	%	Number	%	Number	%
2016	53,738	28.6	55,530	15.1	12,776	39.3	46,598	11.9	55,576	3.4
2015	56,865	30.6	58,232	15.8	14,578	39.6	49,639	13.4	58,251	4.2
2014	60,217	32.0	61,120	16.4	16,301	39.4	52,726	14.6	61,124	4.5
2013	62,025	32.3	61,793	16.8	18,044	36.4	54,649	15.1	61,835	5.0
2012	63,072	32.4	61,988	16.9	16,769	38.6	55,380	16.0	61,994	4.9
2011	. 64,048	32.8	61,427	16.9	16,751	39.5	55,786	16.8	61,403	5.5
2010	64,920	32.9	59,649	17.3	16,257	37.9	56,370	17.9	59,648	6.1

<sup>(1)</sup> Reporting period is January 1 through December 31
(2) Excludes records with unknown data errors.
(3) Prenatal program participation
\* Percentages are not calculated if <100 records are available for analysis after exclusions</li>

Table 19C 2016 Pregnancy Nutrition Survelliance

04/05/2017

# Michigan **Summary of Trends in Infant Health Indicators**

	Summary of Trends in Infant Health Indicators (2)													
Year	Birt	hweight		Preterm	1	Full Term L	.BW	Ever Breas	tfed					
		Low (3)	High (4)	(5)		(6)								
	Number	%	%	Number	%	Number	%	Number	%					
2016	52,145	9.8	6.9	53,729	12.3	45,194	4.2	52,507	66.2					
2015	54,690	9.7	6.9	56,519	11.9	47,822	4.2	54,824	65.1					
2014	57,572	9.0	7.0	59,292	11.8	50,471	3.8	57,574	63.6					
2013	58,028	8.7	7.2	59,882	11.5	50,981	3.7	58,101	63.1					
2012	58,368	8.8	7.3	60,111	12.1	50,877	3.7	58,753	61.2					
2011	58,040	8.6	7.1	59,523	11.7	50,780	3.6	58,401	60.5					
2010	56,075	8.5	7.2	57,799	12.0	48,927	3.6	56,127	59.8					

(1)

<sup>(1)</sup> Reporting period is January 1 through December 31
(2) Excludes records with unknown data errors.
(3) <2500 g.</li>
(4) >4000 g.
(5) <37 weeks gestation.</li>
(6) 37 or more weeks gestation and <2500 g.</li>
\* Percentages are not calculated if <100 records are available for analysis after exclusions</li>

Table 20C 2016 Pregnancy Nutrition Survelliance

Run Date:

(1)

04/05/2017

Sum	mary of Tren	ds in Ma	aternal	I Health Indicators by Race/Ethnicity (2)							
Race/Ethnicity and Year	Prepregnancy BMI (3)			Wei		Anemia (Low Hb/Hct) (5)					
		Under- Weight	Over- Weight		< Ideal	>Ideal	3rd Trim	ester	Postpart	um	
	Number	%	%	Number	%	%	Number	%	Number	%	
White, Not Hispanic											
2010	27,427	4.8	55.7	17,582	17.8	52.5	4,843	35.9	7,138	27.3	
2018	29,193	4.8	54.7	24,338	18.2	51.9	4,999	31.7	7,321	24.6	
2014	31,771	4.7	53.8	25,693	15.5	53.8	5,165	30.6	7,430	22.2	
201;	32,226	4.6	53.6	25,830	15.1	53.9	5,130	28.8	7,346	21.8	
Black, Not Hispanic											
2016	14,954	3.9	62.3	10,223	19.5	51.9	3,280	59.2	3,002	52.1	
2018	15,902	4.2	60.2	13,238	20.2	51.2	3,363	58.0	3,040	49.8	
2014	16,219	3.9	60.9	13,406	18.5	52.2	3,417	54.7	3,075	45.9	
2013	16,964	3.9	60.3	13,962	18.4	53.2	3,403	54.8	2,891	45.5	

<sup>(1)</sup> Reporting period is January 1 through December 31

 <sup>(1)</sup> Reporting period is January 1 through December 31
 (2) Excludes records with unknown data errors.
 (3) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight (BMI <18.5), normal weight (BMI 18.5 to 24.9). overweight (BMI 25.0 to 29.9), obese (BMI > 30.0).
 (4) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight during pregnancy (ideal weight gain = 28 to 40 pounds), normal weight prepregnancy (ideal weight gain = 25 to 35 pounds), overweight gain = 15 to 25 pounds), obese prepregnancy (ideal weight gain = 11 to 20 pounds).
 (5) Based on 1990 MMWR, "Recommendations to prevent and control Iron Deficiency in the United States"; adjusted for altitude and smoking.
 \* Percentages are not calculated if <100 records are available for analysis after exclusions</li>

# Table 20C 2016 Pregnancy Nutrition Survelliance

Michigan

(1)

Run Date:

04/05/2017

Su	mm	ary of Tren	ds in Ma	aternal	Health Indica	itors by	Race/Et	hnicity	(2)			
Race/Ethnicity and Year		Prepreg	gnancy BM (3)	1I	Wei	ght Gain <sup>(4)</sup>		Anemia (Low Hb/Hct) (5)				
			Under- Weight	Over- Weight		< Ideal	>Ideal	3rd Trim	ester	Postpart	um	
		Number	%	%	Number	%	%	Number	%	Number	%	
Hispanic												
2	016	5,372	3.1	62.6	3,323	24.8	44.2	935	45.3	1,157	33.9	
2	015	5,334	2.4	62.0	4,308	24.0	44.5	840	34.4	1,156	30.2	
2	014	5,293	2.2	62.5	4,053	21.9	46.0	810	33.7	1,170	25.3	
2	013	5,481	2.6	62.2	4,256	21.1	44.9	796	38.2	1,000	31.7	
American Indian/Alaska Native							,					
2	016	156	3.2	63.5	78	*	*	22	*	42	*	
2	015	206	3.9	59.2	165	20.0	47.3	33	*	41	*	
2	014	191	4.7	53.4	139	23.7	55.4	21	*	50	*	
2	013	232	3.4	54.3	169	16.6	51.5	22	*	35	*	

<sup>(1)</sup> Reporting period is January 1 through December 31

 <sup>(1)</sup> Reporting period is January 1 through December 31
 (2) Excludes records with unkown data errors.
 (3) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight (BMI <18.5), normal weight (BMI 18.5 to 24.9). overweight (BMI 25.0 to 29.9), obese (BMI > 30.0).
 (4) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight during pregnancy (ideal weight gain = 28 to 40 pounds), normal weight prepregnancy (ideal weight gain = 15 to 25 pounds), obese prepregnancy (ideal weight gain = 11 to 20 pounds).
 (5) Based on 1990 MMWR, "Recommendations to prevent and control Iron Deficiency in the United States"; adjusted for altitude and smoking.
 \* Percentages are not calculated if <100 records are available for analysis after exclusions</li>

Table 20C 2016 Pregnancy Nutrition Survelliance

Summary of Trends in Maternal Health Indicators by Race/Ethnicity

(1)

Run Date:

Sumr	nary of Tren	ds in Ma	aternal	I Health Indicators by Race/Ethnicity (2)								
Race/Ethnicity and Year	Prepregnancy BMI (3)			V	Veight Ga (4)	in	Anemia (Low Hb/Hct) (5)					
		Under- Weight	Over- Weight		< Idea	al >Ideal	3rd Trim	ester	Postpart	um		
	Number	%	%	Number	%	%	Number	%	Number	%		
Asian/Pacific Islander												
2016	1,003	7.7	37.9	6	10 30.	7 30.7	183	40.4	298	29.9		
2015	974	9.0	34.6	7	69 27.	34.7	172	29.1	294	26.2		
2014	986	9.0	32.0	7	85 27.	1 30.7	187	34.8	289	26.3		
2013	1,094	10.1	29.6	8	65 27.	1 31.0	185	28.6	287	22.6		
Multiple Races							İ					
2016	2,084	4.7	58.0	1,3	18 19.	54.9	376	41.2	510	35.9		
2015	1,981	4.3	56.2	1,6	36 19.	52.7	342	42.1	453	28.5		
2014	2,069	4.7	55.8	1,6	30 16.	9 54.5	358	42.5	470	30.0		
2013	2,056	4.8	54.8	1,6	39 16.	3 52.7	365	39.5	435	32.6		

<sup>(1)</sup> Reporting period is January 1 through December 31

 <sup>(1)</sup> Reporting period is January 1 through December 31
 (2) Excludes records with unknown data errors.
 (3) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight (BMI <18.5), normal weight (BMI 18.5 to 24.9). overweight (BMI 25.0 to 29.9), obese (BMI > 30.0).
 (4) Based on 2009 IOM report "Weight Gain During Pregnancy": underweight during pregnancy (ideal weight gain = 28 to 40 pounds), normal weight prepregnancy (ideal weight gain = 25 to 35 pounds), overweight gain = 15 to 25 pounds), obese prepregnancy (ideal weight gain = 11 to 20 pounds).
 (5) Based on 1990 MMWR, "Recommendations to prevent and control Iron Deficiency in the United States"; adjusted for altitude and smoking.
 \* Percentages are not calculated if <100 records are available for analysis after exclusions</li>

# Table 20C 2016 Pregnancy Nutrition Survelliance

Michigan

Summary of Trends in Maternal Health Indicators by Race/Ethnicity

(1)

04/05/2017

Run Date:

Summary of Trends in Maternal Health Indicators by Race/Ethnicity (2) Race/Ethnicity and Year Prepregnancy BMI Weight Gain Anemia (4) (Low Hb/Hct) (5) Under-Over-< Ideal >Ideal 3rd Trimester Postpartum Weight Weight % % % % % % Number Number Number Number All Other/Unknown 2016 20 3 6 7 2015 6 3 0 2 5 2014 0 2013 4 Total All Race/Ethnic Groups 2016 51,019 58.1 33,141 19.4 9,642 45.1 12,155 34.6 4.4 51.2 2015 53,599 56.8 9,750 12,308 31.6 4.4 44,460 19.6 50.7 41.4 2014 56,540 4.3 56.3 45,714 17.2 52.3 9,959 39.6 12,485 28.7 2013 58,063 46,728 9,903 38.9 11,995 28.7 4.3 56.0 16.9 52.4

<sup>(1)</sup> Reporting period is January 1 through December 31

<sup>(2)</sup> Excludes records with unknown data errors.

<sup>(3)</sup> Based on 2009 IOM report "Weight Gain During Pregnancy": underweight (BMI <18.5), normal weight (BMI 18.5 to 24.9). overweight (BMI 25.0 to 29.9), obese (BMI > 30.0).

 <sup>(4)</sup> Based on 2009 IOM report "Weight Gain During Pregnancy": underweight during pregnancy (ideal weight gain = 28 to 40 pounds), normal weight prepregnancy (ideal weight gain = 25 to 35 pounds), overweight gain = 15 to 25 pounds), obese prepregnancy (ideal weight gain = 11 to 20 pounds).
 (5) Based on 1990 MMWR, "Recommendations to prevent and control Iron Deficiency in the United States"; adjusted for altitude and smoking.

<sup>\*</sup> Percentages are not calculated if <100 records are available for analysis after exclusions

Table 21C 2016 Pregnancy Nutrition Survelliance Michigan

# Summary of Trends in Maternal Behavioral Indicators by Race/Ethnicity

Summary of Tre	ends in Mater	nal Behavio	ral Indi	cators by	Race/Ethn	icity (2)	
Race/Ethnicity and Year		Me	dical Car	е	WIC Enrollment		
		1st Trime	ester	No Care	1st Trim	ester	
		Number	%	%	Number	%	
White, Not Hispanic							
	2016	29,471	83.8	9.8	31,689	36.0	
	2015	31,258	82.6	10.8	33,641	37.4	
	2014	33,737	81.3	12.3	36,233	39.3	
	2013	33,997	81.9	11.7	36,816	40.7	
Black, Not Hispanic							
	2016	16,144	80.4	4.8	17,150	23.5	
	2015	16,978	79.5	5.7	18,054	25.0	
	2014	17,232	78.0	6.4	18,263	26.2	
	2013	17,561	77.8	6.4	18,797	26.9	

Run Date:

<sup>(1)</sup> Reporting period is January 1 through December 31
(2) Excludes data with errors.
\* Percentages are not calculated if <100 records are available for analysis after exclusions</li>

# Michigan Summary of Trends in Maternal Behavioral Indicators by Race/Ethnicity

Summary of Trends in Maternal Behavioral Indicators by Race/Ethnicity (2)											
Race/Ethnicity and Year		Me	dical Car	е	WIC Enrollment						
		1st Trime	ester	No Care	1st Trim	ester					
		Number	%	%	Number	%					
Hispanic											
	2016	5,744	79.0	11.7	6,262	38.5					
	2015	5,821	77.3	12.7	6,335	40.6					
	2014	5,752	74.6	15.5	6,304	42.3					
	2013	5,889	74.3	16.0	6,509	45.4					
American Indian/Alaska Native											
	2016	162	84.6	5.6	182	40.7					
	2015	205	82.0	9.8	227	37.0					
	2014	207	80.7	11.6	227	46.3					
	2013	217	81.1	10.1	243	49.8					

Run Date:

<sup>(1)</sup> Reporting period is January 1 through December 31
(2) Excludes data with errors.
\* Percentages are not calculated if <100 records are available for analysis after exclusions</li>

Table 21C 2016 Pregnancy Nutrition Survelliance (1)

Summary of Trends in Maternal Behavioral Indicators by Race/Ethnicity

Summary of Trends in Mate	ernal Behav	vioral Ind	dicators by	Race/Ethr	nicity (2)
Race/Ethnicity and Year		Medical Ca	are	WIC Enr	ollment
	1st Tr	imester	No Care	1st Trim	nester
	Number	%	%	Number	%
Asian/Pacific Islander					
201	6 1,16	4 84.8	7.6	1,240	31.2
201	5 1,22	1 84.0	8.5	1,298	33.7
201	4 1,21	3 82.8	10.1	1,304	33.8
201	3 1,24	7 83.6	8.3	1,343	35.9
Multiple Races					
201	6 2,20	5 81.0	9.2	2,349	34.6
201	5 2,07	7 79.5	10.6	2,240	36.7
201	4 2,17	0 78.8	11.5	2,360	37.4
201	3 2,12	1 78.9	10.7	2,304	37.4

Run Date:

<sup>(1)</sup> Reporting period is January 1 through December 31
(2) Excludes data with errors.
\* Percentages are not calculated if <100 records are available for analysis after exclusions</li>

Table 21C 2016 Pregnancy Nutrition Survelliance

# Summary of Trends in Maternal Behavioral Indicators by Race/Ethnicity

Summary of Trends in	Mater	nal Behavio	ral Indi	cators by	Race/Ethn	icity (2)
Race/Ethnicity and Year		Ме	edical Car	е	WIC Enro	ollment
		1st Trime	ester	No Care	1st Trim	ester
		Number	%	%	Number	%
All Other/Unknown						
	2016	9	*	*	316	6.0
	2015	1	*	*	386	42.2
	2014	2	*	*	259	6.6
	2013	3	*	*	249	4.0
Total All Race/Ethnic Groups						
	2016	54,902	82.2	8.4	59,192	32.4
	2015	57,566	81.1	9.4	62,186	34.1
	2014	60,317	79.7	10.8	64,954	35.7
	2013	61,039	79.9	10.5	66,266	36.9

Run Date:

<sup>(1)</sup> Reporting period is January 1 through December 31
(2) Excludes data with errors.
\* Percentages are not calculated if <100 records are available for analysis after exclusions</li>

Table 22C 2016 Pregnancy Nutrition Survelliance (1)

Summary of Trends in Smoking Indicators by Race/Ethnicity

04/05/2017

Run Date:

	Summary	of Trends in	Smokir	ng Indicators k	y Rac	ce/Ethnicity (2)					
Race/Ethnicity and Year			Smo	king				Smo	king in I	Household	
		3 Month Prior to Preg		Last 3 Montl of Pregnand		Quit Smokii By First Pren Visit and Staye Cigarettes	atal ed Off	Prenata	al	Postpartu	mı
		Number	%	Number	%	Number	%	Number	%	Number	%
White, Not Hispanic											
	2016	29,428	35.6	29,826	20.8	8,628	33.1	25,257	12.4	29,852	3.0
	2015	31,425	37.9	31,623	21.7	9,921	34.1	27,132	13.9	31,635	3.7
	2014	34,182	39.5	34,171	22.0	11,369	34.4	29,651	15.1	34,175	4.0
	2013	34,978	40.0	34,387	22.8	12,572	31.8	30,488	15.7	34,405	4.3
Black, Not Hispanic										ĺ	
	2016	15,021	20.9	16,280	8.1	2,669	55.8	13,003	13.6	16,292	4.6
	2015	16,078	22.5	17,131	8.4	3,086	55.0	14,069	15.2	17,139	5.7
	2014	16,491	23.0	17,359	8.7	3,238	54.8	14,478	16.4	17,360	6.2
	2013	17,239	22.4	17,682	8.6	3,489	49.8	15,242	16.9	17,709	7.5

<sup>(1)</sup> Reporting period is January 1 through December 31
(2) Excludes data with errors.
(3) Among women who smoked 3 months prior to pregnancy
\* Percentages are not calculated if <100 records are available for analysis after exclusions</li>

Table 22C 2016 Pregnancy Nutrition Survelliance (1)

Summary of Trends in Smoking Indicators by Race/Ethnicity

04/05/2017 Run Date:

Summary of Trends in Smoking Indicators by Race/Ethnicity (2)													
Race/Ethnicity and Year		Smo	king				Smo	king in I	Household				
	3 Mont Prior to Preg	_	Last 3 Months of Pregnancy		Quit Smoki By First Pren Visit and Staye Cigarettes	atal ed Off	Prenata	al	Postpartum				
	Number	%	Number	%	Number	%	Number	%	Number	%			
Hispanic													
2016	5,775	14.7	5,846	6.0	721	53.5	5,271	6.1	5,850	1.7			
201	5,834	15.5	5,931	5.4	791	54.6	5,346	6.7	5,927	2.4			
2014	5,895	15.6	5,918	6.2	795	52.3	5,406	7.2	5,921	2.3			
2013	6,121	16.7	6,088	6.7	958	49.0	5,663	7.5	6,085	2.2			
American Indian/Alaska Native	İ												
2016	168	48.8	160	26.9	62	*	152	16.4	161	6.8			
2015	197	52.8	207	41.1	82	*	172	26.7	206	8.3			
2014	213	45.5	206	32.5	89	*	197	22.3	205	11.2			
2013	3 232	52.2	217	34.6	117	21.4	211	20.4	214	8.4			

<sup>(1)</sup> Reporting period is January 1 through December 31
(2) Excludes data with errors.
(3) Among women who smoked 3 months prior to pregnancy
\* Percentages are not calculated if <100 records are available for analysis after exclusions</li>

Table 22C 2016 Pregnancy Nutrition Survelliance (1)

Summary of Trends in Smoking Indicators by Race/Ethnicity

04/05/2017 Run Date:

Summary of Trends in Smoking Indicators by Race/Ethnicity (2)													
Race/Ethnicity and Year		Smo	king				Smo	king in I	Household				
	3 Months Prior to Pregnancy		Last 3 Months of Pregnancy		Quit Smokir By First Prena Visit and Staye Cigarettes (	atal d Off	Prenata	ıl	Postparti				
	Number	nber % Nur		%	Number	%	Number	%	Number	%			
Asian/Pacific Islander													
2016	1,176	3.6	1,182	1.1	36	*	977	3.0	1,182	1.2			
2015	1,240	3.8	1,244	1.2	39	*	1,041	3.4	1,244	1.4			
2014	1,253	3.8	1,259	1.4	39	*	1,020	3.7	1,255	1.0			
2013	1,293	5.5	1,264	1.3	64	*	1,084	3.0	1,265	1.6			
Multiple Races							,						
2016	2,147	36.0	2,224	19.5	660	37.7	1,924	14.5	2,227	3.8			
2015	2,085	37.6	2,090	21.6	657	33.9	1,874	16.6	2,094	5.2			
2014	2,176	41.0	2,200	23.1	770	35.6	1,970	17.6	2,201	5.6			
2013	2,154	42.9	2,147	24.1	842	33.4	1,956	20.2	2,149	6.5			

<sup>(1)</sup> Reporting period is January 1 through December 31
(2) Excludes data with errors.
(3) Among women who smoked 3 months prior to pregnancy
\* Percentages are not calculated if <100 records are available for analysis after exclusions</li>

Table 22C 2016 Pregnancy Nutrition Survelliance (1)

Summary of Trends in Smoking Indicators by Race/Ethnicity

04/05/2017 Run Date:

Summary of Trends in Smoking Indicators by Race/Ethnicity (2)												
Race/Ethnicity and Year		Smo	king			Sm	oking in I	Household				
	3 Mo Prior to P		Last 3 Months of Pregnancy		Quit Smoking By First Prenatal Visit and Stayed Off Cigarettes (3)		Prenatal		Postparti	um		
	Number	Number % N		%	Number	Number %		%	Number	%		
All Other/Unknown												
201	5 19	*	9	*	0	*	10	*	9	*		
201	5 :	2 *	1	*	0	*	1	*	1	*		
201	4	*	3	*	0	*	0	*	3	*		
201.	3	4 *	3	*	0	*	1	*	3	*		
Total All Race/Ethnic Groups												
2010	53,738	3 28.6	55,530	15.1	12,776	39.3	46,598	11.9	55,576	3.4		
201	56,86	30.6	58,232	15.8	14,578	39.6	49,639	13.4	58,251	4.2		
201	60,217	7 32.0	61,120	16.4	16,301	39.4	52,726	14.6	61,124	4.5		
201:	62,02	32.3	61,793	16.8	18,044	36.4	54,649	15.1	61,835	5.0		

<sup>(1)</sup> Reporting period is January 1 through December 31
(2) Excludes data with errors.
(3) Among women who smoked 3 months prior to pregnancy
\* Percentages are not calculated if <100 records are available for analysis after exclusions</li>

Table 23C **2016 Pregnancy Nutrition Survelliance** (1)

Run Date: 04/05/2017

Summary of Trends in Infant Health Indicators by Race/Ethnicity (2)										
Race/Ethnicity and Year	Birthweight			Preterm		Full Term LBW		Ever Breastfed		
		Low (3)	High (4)	(5)		(6	5)			
	Number	%	%	Number	%	Number	%	Number	%	
White, Not Hispanic										
2016	27,800	8.0	8.8	28,754	11.1	24,437	3.2	28,125	70.6	
2015	29,530	8.0	8.8	30,641	10.5	26,217	3.3	29,766	70.3	
2014	32,113	7.4	8.6	33,081	10.4	28,601	3.0	32,154	68.8	
2013	32,152	7.2	8.9	33,207	9.9	28,774	3.0	32,243	68.9	
Black, Not Hispanic										
2016	15,487	13.8	3.5	15,903	15.3	12,985	6.3	15,497	54.6	
2015	16,299	13.8	3.5	16,764	14.7	13,795	6.1	16,197	52.3	
2014	16,556	13.1	3.9	16,994	14.7	14,036	5.7	16,472	50.5	
2013	16,803	12.2	3.8	17,344	14.6	14,251	5.4	16,733	49.5	

<sup>(1)</sup> Reporting period is January 1 through December 31
(2) Excludes records with unknown data errors.
(3) <2500 g.</li>
(4) >4000 g.
(5) <37 weeks gestation.</li>
(6) 37 or more weeks gestation and <2500 g.</li>
\* Percentages are not calculated if <100 records are available for analysis after exclusions</li>

Table 23C **2016 Pregnancy Nutrition Survelliance** (1)

Run Date: 04/05/2017

Summary of Trends in Infant Health Indicators by Race/Ethnicity (2)												
Race/Ethnicity and Year		Birthweight			Preterm		Full Term LBW		Ever Breastfed			
					Low (3)	High (4)		5)	(6	6)		
		Number	%	%	Number	%	Number	%	Number	%		
Hispanic												
	2016	5,469	7.5	7.8	5,590	11.1	4,797	3.7	5,496	72.3		
	2015	5,550	7.1	8.0	5,687	11.3	4,875	3.1	5,569	70.9		
	2014	5,500	6.3	8.0	5,671	11.4	4,837	2.6	5,541	69.1		
	2013	5,665	6.9	8.3	5,812	11.8	4,956	2.8	5,696	67.2		
American Indian/Alaska Native						·						
	2016	149	3.4	12.1	158	8.2	136	1.5	150	73.3		
	2015	199	4.5	11.1	200	12.5	171	1.2	196	68.4		
	2014	183	6.0	12.6	194	13.9	157	3.8	182	67.6		
	2013	193	3.6	13.0	200	11.5	170	1.2	193	63.7		

<sup>(1)</sup> Reporting period is January 1 through December 31
(2) Excludes records with unknown data errors.
(3) <2500 g.</li>
(4) >4000 g.
(5) <37 weeks gestation.</li>
(6) 37 or more weeks gestation and <2500 g.</li>
\* Percentages are not calculated if <100 records are available for analysis after exclusions</li>

#### Table 23C **2016 Pregnancy Nutrition Survelliance** (1) Michigan

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Summary of Trends in Infant Health Indicators by Race/Ethnicity (2)										
Race/Ethnicity and Year	Birthweight			Preterm		Full Term LBW		Ever Breastfed		
		Low (3)	High (4)	(5)						
	Number	%	%	Number	%	Number	%	Number	%	
Asian/Pacific Islander										
2016	1,112	10.6	4.5	1,159	11.8	972	5.1	1,127	74.4	
2015	1,160	9.7	4.0	1,199	10.5	1,027	6.1	1,154	76.9	
2014	1,153	10.5	5.0	1,206	10.9	1,017	6.0	1,170	73.2	
2013	1,187	7.9	3.8	1,218	11.2	1,048	3.6	1,200	73.4	
Multiple Races										
2016	2,119	9.1	6.4	2,155	11.2	1,860	4.0	2,102	70.7	
2015	1,947	8.7	6.5	2,022	10.2	1,733	4.1	1,937	68.5	
2014	2,060	8.9	6.7	2,140	11.4	1,817	3.8	2,048	65.5	
2013	2,021	8.9	6.4	2,094	11.4	1,777	3.9	2,029	66.3	

<sup>(1)</sup> Reporting period is January 1 through December 31
(2) Excludes records with unknown data errors.
(3) <2500 g.</li>
(4) >4000 g.
(5) <37 weeks gestation.</li>
(6) 37 or more weeks gestation and <2500 g.</li>
\* Percentages are not calculated if <100 records are available for analysis after exclusions</li>

Table 23C **2016 Pregnancy Nutrition Survelliance** (1)

Run Date:

04/05/2017

Summary of Trends in Infant Health Indicators by Race/Ethnicity (2)															
Race/Ethnicity and Year		Birthweight			Preterm		Full Term LBW		astfed						
		Low (3)	High (4)	(5)		(5)		(5)		(6)		(6)			
	Number	%	%	Number	%	Number	%	Number	%						
All Other/Unknown															
2016	7	*	*	8	*	5	*	8	*						
2015	0	*	*	1	*	0	*	0	*						
2014	3	*	*	2	*	2	*	3	*						
2013	3	*	*	2	*	2	*	3	*						
Total All Race/Ethnic Groups															
2016	52,145	9.8	6.9	53,729	12.3	45,194	4.2	52,507	66.2						
2015	54,690	9.7	6.9	56,519	11.9	47,822	4.2	54,824	65.1						
2014	57,572	9.0	7.0	59,292	11.8	50,471	3.8	57,574	63.6						
2013	58,028	8.7	7.2	59,882	11.5	50,981	3.7	58,101	63.1						

<sup>(1)</sup> Reporting period is January 1 through December 31
(2) Excludes records with unknown data errors.
(3) <2500 g.</li>
(4) >4000 g.
(5) <37 weeks gestation.</li>
(6) 37 or more weeks gestation and <2500 g.</li>
\* Percentages are not calculated if <100 records are available for analysis after exclusions</li>